

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

1. (currently amended) A method of cutting ~~segments to desired lengths from a strip of elastomeric material into segments of a desired length, the segments has~~ strip having a width W, the ~~elastomeric~~ strip being formed of a plurality of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising:

moving ~~on a~~ ultrasonic knife cutting device into cutting engagement of the ~~elastomeric~~ strip while supporting the strip ~~on an anvil along the cutting path;~~
positioning the cutting edge of the cutting device at a gap distance (d) above the anvil
slightly less than or equal to the thickness of the cord reinforced component;

cutting the segment strip at a skive angle α ; and while
impacting a cord of the cord reinforced component, lifting said cord over the ~~ultrasonic knife cutting edge~~ as the segment strip is being cut forming a segment, the impacted cord being at a cut end adjacent the cutting path.

2. (currently amended) The method of cutting segments of claim 1 further comprises the step of:

orienting a said cutting edge ~~on the ultrasonic knife~~ inclined at an acute angle β relative to the strip cutting path.

3. (original) The method of cutting segments of claim 1 further comprises the steps of movably restraining the strip ahead of the cutting.

4. (currently amended) The method of cutting segments of claim 1 wherein the steps of supporting the strip ~~including~~ include supporting the strip at an angle θ_1 , less than the skive angle α on one side of the cutting path and an angle θ_2 greater than the skive angle α on the opposite side of the cutting path.

5. (currently amended) The method of cutting segments of claim 4, wherein the location of the impacted cord occurs approximately at the location wherein the supporting angle changes ~~for from~~ θ_1 to θ_2 .

6. (currently amended) ~~The method of claim 2 further comprises the step of A method of cutting segments to desired lengths from a strip of elastomeric material, the segments having a width W, the elastomeric strip being formed of a plurality of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising:~~

orienting a cutting edge on the ultrasonic knife inclined at an acute angle β relative to the strip cutting path, and positioning the cutting edge of the ultrasonic knife at a gap distance (d) above the strip slightly less than or slightly equal to the greater than thickness of the cord reinforced component, and moving the ultrasonic knife into cutting engagement of the elastomeric strip while supporting the strip along the cutting path;

cutting the segment at a skive angle α while impacting a cord of the cord reinforced component lifting said cord over the ultrasonic knife as the segment is being cut, the impacted cord being at a cut end adjacent the cutting path.

7. (original) The method of claim 6 wherein the step of cutting further includes cutting the segment wherein a plurality of cords are beneath and adjacent a flat cut surface.

8. (new) A segment formed from the method of claim 1.

9. (new) A segment formed from the method of claim 6.

10. (new) The method of claim 1 wherein the cutting device is an ultrasonic knife.

11. (new) A method of cutting an elastomeric strip into segments of a desired length, the elastomeric strip having a width W , the elastomeric strip being formed of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising the steps of:

supporting the elastomeric strip on an anvil, positioning a cutting edge of a cutting device-at a gap distance (d) above the anvil slightly less than the thickness of the cord reinforced component; and

cutting the strip at a skive angle α while lifting a cord over the cutting edge as the strip is being cut into a segment.

12. (new) A method of cutting an elastomeric strip into segments of a desired length, the elastomeric strip being formed of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across a width W of the strip; the method comprising the steps of:

supporting the elastomeric strip on an anvil, positioning a cutting edge of a cutting device-at a gap distance (d) above the anvil slightly equal to the thickness of the cord reinforced component; and

cutting the strip at a skive angle α while lifting said cord over the cutting edge as the strip is being cut into a segment.

13. (new) The method of claim 12 wherein said cutting edge is oriented at an acute angle β relative to the strip cutting path.

14. (new) The method of claim 11 wherein said cutting edge is oriented at an acute angle β relative to the strip cutting path.

15. (new) The method of claim 11 wherein the cutting device is an ultrasonic knife.

16. (new) The method of claim 12 wherein the cutting device is an ultrasonic knife.

17. (new) The method of claim 11 further comprising the step of supporting the strip on the anvil at an angle θ_1 on one side of the cutting path, θ_1 being less than the skive angle α , and a supporting the strip at an angle θ_2 greater than the skive angle α on the opposite side of the cutting path.

18. (new) The method of claim 12 further comprising the step of supporting the strip on the anvil at an angle θ_1 on one side of the cutting path, θ_1 being less than the skive angle α , and a supporting the strip at an angle θ_2 greater than the skive angle α on the opposite side of the cutting path.

19. (new) The method of claim 17 wherein the cutting edge of the cutting device is positioned over the anvil at the gap distance (d) along the anvil oriented at an angle θ_2 .

20. (new) The method of claim 17 wherein the cutting edge of the cutting device is positioned over the anvil at the gap distance (d) along the anvil oriented at an angle θ_2 .